IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A memory medium which stores program instructions implementing a graphical user interface (GUI) for debugging a program, wherein, during execution of the program, the program instructions are executable by a processor to perform:

displaying source code for the program on a display during execution of the program ~~in a first GUI element~~;

receiving first user input ~~to the first GUI element indicating~~ hovering a mouse cursor over an expression in the source code;

in response to said hovering the mouse cursor over the expression, displaying a GUI element proximate to the expression, wherein the GUI element includes a value of the expression ~~in a tooltip in response to said first user input~~;

receiving second user input to the GUI element ~~tooltip~~ modifying the displayed value, thereby specifying a new value for the expression; and

setting the expression in the program to the new value in response to the second user input, wherein the program continues execution in accordance with the new value of the expression.

2.-5. (Cancelled)

6. (Currently Amended) The memory medium of claim 1, wherein the GUI element ~~tooltip~~ is context sensitive.

7. (Currently Amended) The memory medium of claim 6, wherein the GUI element ~~tooltip~~ comprises a control corresponding to a data type of the expression, and wherein the data type of the expression comprises at least one of:

a string data type;

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a character data type;

a numeric data type;

a Boolean data type; and

an array data type.

8. (Currently Amended) The memory medium of claim 6, wherein the ~~GUI~~ element ~~tooltip~~ is operable to display the value of the expression in a specified format;

wherein if the expression comprises integer data, the specified format comprises one or more of:

decimal;

hexadecimal;

octal;

binary; and

ASCII; and

wherein if the expression comprises single or double precision, the specified format comprises one or more of:

floating point; and

scientific notation.

9. (Original) The memory medium of claim 8, wherein the specified format is specified via a second GUI element in the GUI.

10. (Original) The memory medium of claim 1, wherein the GUI element ~~tooltip~~ comprises:

a first portion, operable to display the value of the expression, wherein the first portion is further operable to receive the second user input modifying the value; and

a second portion, operable to display non-editable information related to the expression.

11. (Original) The memory medium of claim 10, wherein the second portion comprises a text indicator, operable to display text.

12. (Original) The memory medium of claim 10, wherein the first portion is further operable to graphically indicate that the value is editable.

13. (Original) The memory medium of claim 1, wherein the expression comprises a variable.

14. (Original) The memory medium of claim 1, wherein the expression comprises a syntactic expression comprising one or more of:
one or more variables;
one or more constants;
one or more macros; and
one or more operators.

15. (Original) The memory medium of claim 1, wherein the execution of the program is in debugging mode.

16. (Original) The memory medium of claim 1, wherein the program instructions are further executable to perform:
evaluating the expression to determine the value of the expression.

17. (Currently Amended) The memory medium of claim 1, wherein the program instructions are further executable to perform:
dismissing the GUI element ~~tooltip~~ based on one or more of:
third user input, indicating dismissal of the GUI element ~~tooltip~~; and
lapse of a specified time period.

18. (Currently Amended) A method for debugging a program, the method comprising:

displaying source code for the program <u>on a display during execution of the program</u> ~~in a first GUI element~~;

receiving first user input ~~to the first GUI element indicating~~ <u>hovering a mouse cursor over</u> an expression in the source code;

<u>in response to said hovering the mouse cursor over the expression,</u> displaying a value of the expression in a tooltip <u>proximate to the expression</u> ~~in response to said first user input~~;

receiving second user input to the tooltip modifying the displayed value, thereby specifying a new value for the expression; and

setting the expression in the program to the new value, wherein the program continues execution in accordance with the new value of the expression.

19. (Currently Amended) A system for debugging a program, the system comprising:

a processor; and

a memory coupled to the processor, wherein the memory medium comprises program instructions implementing a graphical user interface (GUI) for debugging the program, wherein the program instructions are executable by the processor to:

display source code for the program <u>on a display during execution of the program</u> ~~in a first GUI element~~;

receive first user input ~~to the first GUI element indicating~~ <u>hovering a mouse cursor over</u> an expression in the source code;

<u>in response to said hovering the mouse cursor over the expression,</u> display a value of the expression in a tooltip <u>proximate to the expression</u> ~~in response to said first user input~~;

receive second user input to the tooltip modifying the displayed value, thereby specifying a new value for the expression; and

set the expression in the program to the new value, wherein the program continues execution in accordance with the new value of the expression.

20. (Currently Amended) A system for debugging a program, the system comprising:

means for displaying source code for the program on a display during execution of the program in a first GUI element;

means for receiving first user input to the first GUI element indicating hovering a mouse cursor over an expression in the source code;

means for displaying a value of the expression in a tooltip GUI element proximate to the expression in response to said hovering the mouse cursor over the expression first user input;

means for receiving second user input to the tooltip modifying the displayed value, thereby specifying a new value for the expression; and

means for setting the expression in the program to the new value, wherein the program continues execution in accordance with the new value of the expression.

21. (Currently Amended) A memory medium which stores program instructions implementing a graphical user interface (GUI) for debugging a program, wherein, during execution of the program, the program instructions are executable by a processor to perform:

displaying source code for the program on a display during execution of the program in a first GUI element;

receiving first user input to the first GUI element indicating hovering a mouse cursor over an expression in the source code;

in response to said hovering the mouse cursor over the expression, displaying the value of the expression in a window proximate to the expression in response to said first user input, wherein the window is operable to display a value of the indicated expression, wherein the window does not include window title bars or menus;

receiving second user input to the window modifying the displayed value, thereby specifying a new value for the expression; and

setting the expression in the program to the new value, wherein the program continues execution in accordance with the new value of the expression.

22. (Original) The memory medium of claim 21, wherein the window is substantially just large enough to display the value of the indicated expression.

23. (Original) The memory medium of claim 21, wherein the window is further operable to display the indicated expression, and wherein the program instructions are further executable to perform:

displaying the indicated expression with the value in the window, wherein the window does not include visible boundaries demarcating the displayed expression and value, wherein the window is substantially just large enough to display the indicated expression and the value of the indicated expression.